

# U.S. International Services

## Cross-Border Trade in 2001 and Sales Through Affiliates in 2000

By Maria Borga and Michael Mann

IN 2001, U.S. exports of private services exceeded U.S. imports of private services; U.S. exports were \$266.2 billion, and U.S. imports were \$192.3 billion (table A). U.S. sales of services sold through majority-owned affiliates of multinational companies exceeded

U.S. purchases in 2000—the most recent year for which data are available. Sales of services abroad through foreign affiliates of U.S. companies were \$392.8 billion, and sales of services in the United States through U.S. affiliates of foreign companies were \$346.7 billion.

**Table A. Sales of Services to Foreign and U.S. Markets Through Cross-Border Trade and Through Affiliates**

	Through cross-border trade <sup>1</sup>		Through nonbank majority-owned affiliates	
	U.S. exports (receipts)	U.S. imports (payments)	Sales to foreign persons by foreign affiliates of U.S. companies <sup>2</sup>	Sales to U.S. persons by U.S. affiliates of foreign companies
	Billions of dollars			
1986.....	77.5	64.7	60.5	n.a.
1987.....	87.0	73.9	72.3	62.6
1988.....	101.0	81.0	83.8	73.2
1989.....	117.9	85.3	99.2	94.2
1990.....	137.2	98.2	121.3	109.2
1991.....	152.4	99.9	131.6	119.5
1992.....	163.7	100.4	140.6	128.0
1993.....	171.6	107.9	142.6	134.7
1994.....	187.4	119.1	159.1	145.4
1995.....	203.8	128.8	190.1	149.7
1996.....	222.6	137.1	223.2	168.4
1997.....	239.0	151.8	255.3	( <sup>3</sup> ) 223.1
1998.....	243.9	167.5	286.1	245.5
1999.....	256.5	173.2	( <sup>4</sup> ) 353.2	293.5
2000.....	277.5	202.1	392.8	346.7
2001.....	266.2	192.3	n.a.	n.a.
	Percent change from prior year			
1987.....	12.2	14.2	19.5	.....
1988.....	16.0	9.5	15.9	17.0
1989.....	16.8	5.3	18.4	28.7
1990.....	16.4	15.1	22.2	15.9
1991.....	11.1	1.8	8.5	9.5
1992.....	7.4	0.4	6.8	7.1
1993.....	4.8	7.5	1.5	5.3
1994.....	9.2	10.3	11.6	8.0
1995.....	8.8	8.1	19.4	2.9
1996.....	9.3	6.5	17.4	12.5
1997.....	7.4	10.7	14.4	( <sup>3</sup> )
1998.....	2.1	10.3	12.0	10.1
1999.....	5.2	3.4	( <sup>4</sup> )	19.6
2000.....	8.2	16.7	11.2	18.1
2001.....	-4.1	-4.8	n.a.	n.a.

n.a. Not available.

1. The estimates for 1998–2000 are revised from those published in last year's article in this series. See Christopher L. Bach, "Annual Revision of the U.S. International Accounts, 1993–2001," *SURVEY OF CURRENT BUSINESS* 82 (July 2002): 33–40.

2. The figures shown in this column for 1986–88 have been adjusted, for the purposes of this article, to be consistent with those for 1989 forward, which reflect definitional and methodological improvements made in the 1989 Benchmark Survey of U.S. Direct Investment Abroad. The primary improvement was that investment income of affiliates in finance and insurance was excluded from sales of services. The adjustment was made by assuming that investment income of finance and insurance affiliates in 1986–88 accounted for the same share of sales of services plus investment income as in 1989.

3. Beginning in 1997, sales by U.S. affiliates were classified as goods or services based on industry codes derived from the North American Industry Classification System; the estimates for prior years were based on codes derived from the 1987 Standard Industrial Classification System. This change resulted in a redefinition of sales of services by affiliates, which resulted in a net shift of sales from goods to services. See the box "Changes in the Definition and Classification of Sales of Services by U.S. Affiliates" in the October 1999 *SURVEY*, page 61, available at [www.bea.gov](http://www.bea.gov).

4. Beginning in 1999, sales by foreign affiliates were classified as goods or services based on industry codes derived from the North American Industry Classification System; the estimates for prior years were based on codes derived from the 1987 Standard Industrial Classification System. This change resulted in a redefinition of sales of services by affiliates, which resulted in a net shift of sales from goods to services. See the box "Changes in the Definition and Classification of Sales of Services by Foreign Affiliates" in the November 2001 *SURVEY*, page 58, available at [www.bea.gov](http://www.bea.gov).

U.S. exports of private services fell 4 percent in 2001 after increasing 8 percent in 2000. U.S. imports fell 5 percent after increasing 17 percent. These were the first decreases in exports and imports of private services after decades of growth. In dollar terms, exports decreased more than imports; as a result, the U.S. surplus on trade in private services decreased, to \$73.9 billion in 2001 from \$75.4 billion in 2000. (In trade in goods, however, imports decreased more than exports; as a result, the U.S. deficit on trade in goods fell, to \$427.2 billion from \$452.4 billion.)

The fall in services exports reflected the slowing economic growth in many major U.S. trading partners and the terrorist attacks of September 11<sup>th</sup>. Exports held steady in the first half of 2001 and then fell sharply in the second half of the year, especially after September 11<sup>th</sup>. Travel services were particularly hard hit, as foreigners sharply reduced travel to the United States in the wake of the attacks.

Much of the fall in services imports was attributable to slow economic growth in the United States and to the terrorist attacks. The decrease in imports, like that in exports, was concentrated in the second half of the year. Imports of both travel services and insurance services dropped because of the attacks. The drop in insurance services resulted from large losses recovered from foreign reinsurers; imports of insurance services are measured as premiums paid less losses recovered.

In 2000, sales of services by foreign affiliates of U.S. companies grew 11 percent, and those by U.S. affiliates of foreign companies grew 18 percent. Economic conditions in 2000, unlike those in 2001, were characterized by strong economic growth in the United States and in many of the countries that are important markets for foreign affiliates of U.S. multinational compa-

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nies. In addition, a continued boom in cross-border merger and acquisition activity boosted the growth in sales of services by both foreign and U.S. affiliates by adding a substantial number of affiliates to the direct investment universe; moreover, much of the acquisition activity occurred in industries with substantial sales of services, including utilities, insurance, finance, and computer services. However, the effect of the cross-border mergers on sales through foreign affiliates was mixed because several large affiliates were sold off to foreign firms and so their sales were no longer included in sales of services abroad by foreign affiliates of U.S. companies.

This article presents detailed preliminary estimates of U.S. cross-border exports and imports of private services in 2001 and revised estimates for 1998–2000, and it presents preliminary estimates of U.S. sales of services through, and purchases of services from, nonbank majority-owned affiliates of multinational companies in 2000 and revised estimates for 1999. Cross-border exports and imports are transactions between

U.S. residents and foreign residents; they represent international trade in the conventional sense and are recorded, in summary form, in the U.S. international transactions accounts.<sup>1</sup> Sales of services through nonbank majority-owned affiliates of multinational companies represent services sold in international markets through the channel of direct investment (see the box “Channels of Delivery of Services Sold in International Markets”).<sup>2</sup> The estimates are drawn from larger data sets on affiliate operations that are presented in annual articles on the operations of U.S. multinational com-

1. In the quarterly articles on the U.S. international transactions, table 1 presents cross-border exports of private services in lines 6–10 and cross-border imports in lines 23–27; table 3 provides additional detail.

2. These data cover *all* the sales of services by nonbank majority-owned affiliates, irrespective of the percentage of foreign ownership. The data are limited to nonbank affiliates because bank affiliates are not required to report sales of services data to BEA. The data exclude minority-owned affiliates because data on sales of services by foreign affiliates are collected only for affiliates that are majority-owned by U.S. direct investors. Excluding minority-owned affiliates may be preferable because the direct investor may own as little as 10 percent of a minority-owned affiliate and thus have less interest than local investors in the affiliate's sales.

### **Channels of Delivery of Services Sold in International Markets Cross-Border Trade and Sales Through Affiliates**

Services are sold in international markets through two distinct channels. In the first channel, the residents of one country sell services to the residents of another country. These transactions—cross-border trade—include both trade within multinational companies (intrafirm trade) and trade between unaffiliated parties.<sup>1</sup> They are recorded in the international transactions accounts of both countries—as exports of services by the seller's country and as imports by the buyer's country.

The second channel of delivery is sales through foreign affiliates of multinational companies, which from the U.S. viewpoint, are sales to foreigners by foreign affiliates of U.S. companies and U.S. purchases from other countries' U.S. affiliates. These sales are not considered U.S. international transactions, because under the residency principle of balance-of-payments accounting, affiliates of multinational companies are regarded as residents of the countries where they are located rather than of the countries of their owners. Thus, sales abroad by foreign affiliates are transactions between foreign residents, and sales in the United States by U.S. affiliates are transactions between U.S. residents. (However, the direct investors' shares of the profits earned on these sales are recorded as

U.S. international transactions.)

The two channels of delivery typically differ in their effects on an economy. For example, U.S. cross-border exports usually have a greater effect on the U.S. economy than the equivalent sales through foreign affiliates, because most, or all, of the income generated by the production generally accrues to U.S.-supplied labor and capital. In contrast, for sales through foreign affiliates, only the U.S. parent company's share in profits accrues to the United States (and is recorded as a U.S. international transaction); the other income generated by production—including compensation of employees—typically accrues to foreigners.

Some services can be delivered equally well through either channel, but the channel of delivery is often largely predetermined by the nature of the service. For example, many travel services are inherently delivered through the cross-border channel; in contrast, many business, professional, and technical services are mainly delivered through the affiliate channel because of the need for close, continuing contact between the service providers and their customers.

To obtain a complete picture of the services transactions of affiliates, it would be necessary to examine not only their sales of services, as in this article, but also their purchases of services, both in their countries of location and elsewhere. However, the only available data on their purchases of services are those for transactions between parents and affiliates, which are discussed in the section on cross-border trade.

1. The term “cross-border trade” differs from the term “cross-border mode of supply” that is used in the General Agreement on Trade in Services to refer to the provision of a service by a resident of one country to a resident of another country in which neither the producer nor the consumer goes to the country of the other (for example, a consultant sending a report electronically or by mail).

panies and of U.S. affiliates of foreign companies.<sup>3</sup>

In 2000, services delivered through nonbank majority-owned affiliates again exceeded those delivered through cross-border trade (chart 1). Because of differences in measurement and coverage, comparisons between these two channels of delivery cannot be precise, but the substantial differences in 2000 clearly indicate that delivery through affiliates was the larger channel for both U.S. sales and U.S. purchases of pri-

ivate services.<sup>4</sup>

The use of each channel of delivery for 2000 is shown for major geographic areas in chart 2 and for

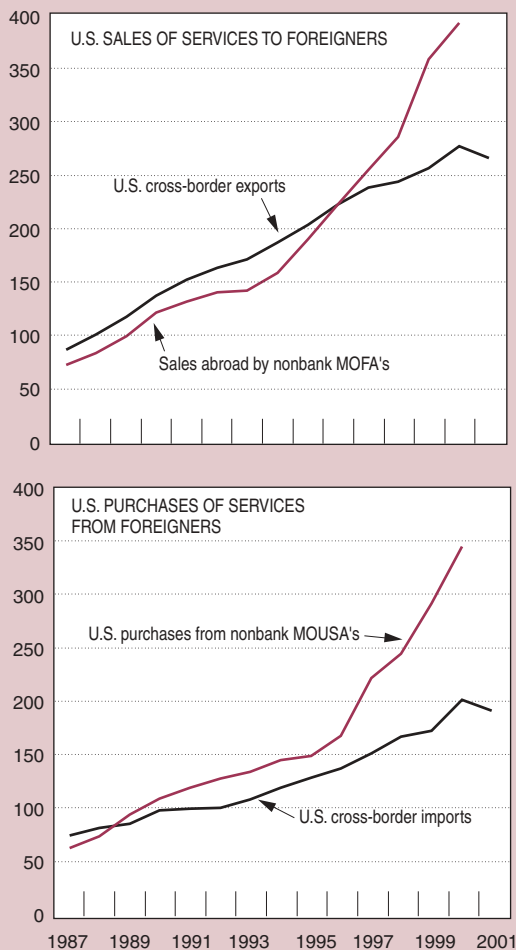
3. See Raymond J. Mataloni, Jr., "Operations of U.S. Multinational Companies: Preliminary Results from the 1999 Benchmark Survey," *SURVEY OF CURRENT BUSINESS* 82 (March 2002): 24–54, and William J. Zeile, "U.S. Affiliates of Foreign Companies: Operations in 2000," *SURVEY* 82 (August 2002): 149–166.

4. An example of a difference in measurement is that cross-border exports and imports of insurance services are measured as premiums minus claims, while sales of services by affiliates in insurance largely reflect premium income with no deductions for claims; this difference tends to exaggerate the relative importance of sales through affiliates. An example of a difference in coverage is that the estimates of cross-border exports and imports include services provided by banks, while those of sales through affiliates cover only nonbank affiliates. BEA has begun implementing changes to the measurement and coverage of selected services to improve the comparability of the two series. (See Obie G. Whichard and Maria Borga, "Selected Issues in the Measurement of U.S. International Services," *SURVEY* 82 (June 2002): 36–56.)

### CHART 1

#### U.S. International Sales and Purchases of Private Services, 1987–2001<sup>1</sup>

Billion \$



Note. Data reflect the information in footnotes 2, 3 and 4 to table A.

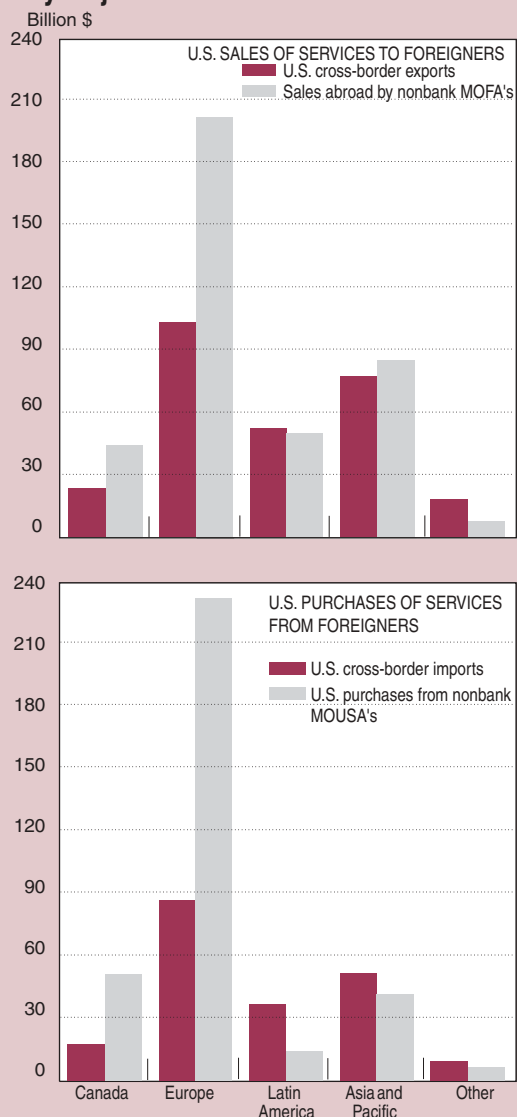
MOFA Majority-owned foreign affiliate  
MOUSA Majority-owned U.S. affiliate

1. The data for sales and purchases through majority-owned affiliates are shown through 2000, the latest year for which these data are available.

U.S. Bureau of Economic Analysis

### CHART 2

#### U.S. Sales and Purchases of Services by Major Area in 2000



MOFA Majority-owned foreign affiliate  
MOUSA Majority-owned U.S. affiliate  
U.S. Bureau of Economic Analysis

selected countries in chart 3. For specific types of services, however, the relative importance of the two channels is difficult to gauge because of the differences in measurement and coverage and because of differences in the basis of classification. Available data on cross-border trade are generally classified by type of service, whereas the data on sales of services through affiliates are classified by primary industry of the affiliate.

### U.S. Cross-Border Trade in 2001

In 2001, U.S. exports of private services (receipts) decreased 4 percent, to \$266.2 billion, following an 8-percent increase in 2000. U.S. imports of private services (payments) decreased 5 percent, to \$192.3 billion, following a 17-percent increase in 2000. The

	Percent change from prior year			
	Exports		Imports	
	2000	2001	2000	2001
Private services .....	8	-4	17	-5
Travel .....	10	-11	10	-7
Passenger fares .....	5	-13	14	-8
Other transportation.....	12	-6	22	-7
Royalties and license fees.....	7	-2	28	2
Other private services .....	7	3	19	-1

decreases in exports and imports of private services were primarily attributable to decelerating economic growth and the effects of the attacks of September 11<sup>th</sup> (see the box “Effects of the Terrorist Attacks of September 11<sup>th</sup> on Cross-Border Trade in Services” on page 73).

Changes in the foreign-currency value of the dollar may also have affected U.S. cross-border services trade, but the effect cannot be precisely measured because it cannot be clearly distinguished from those of other variables that affected U.S. trade flows. The dollar appreciated steadily against the currencies of most of the major trading partners throughout 2000 and in the first half of 2001, and it remained at a high level in the second half of 2001. For the year, the dollar appreciated 3 percent against the euro, 13 percent against the yen, 4 percent against the Canadian dollar, and 5 percent against the pound.<sup>5</sup>

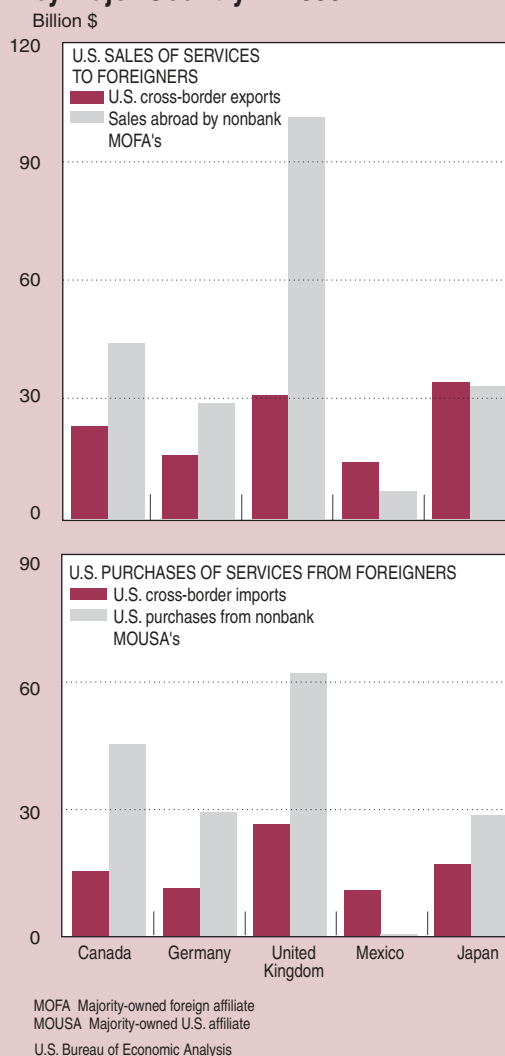
After decades of steady growth, the falloff in services exports in 2001 was an extraordinary development. All the major categories of services except “other private services,” which was bolstered by sharp increases in affiliated receipts, fell. The steepest fall was in travel services, as foreigners sharply curtailed their visits to the United States.

The falloff in exports was concentrated in the sec-

5. Annual exchange rates are period averages.

CHART 3

### U.S. Sales and Purchases of Services by Major Country in 2000



ond half of 2001. In the first half of the year, exports remained virtually unchanged from their average level during 2000; in the second half, they fell 8 percent from the same period in 2000, as the effects of the September 11<sup>th</sup> attacks compounded the effects of weak economic activity abroad.

The drop in imports of private services in 2001 represented a dramatic turnaround from the 17-percent increase in 2000, the fastest growth in more than 20 years.<sup>6</sup> The turnaround was partly due to a sharp slow-

6. The increase from 1983–84 was larger than that in 1999–2000. However, the 1983–84 increase was largely attributable to a break in the series that resulted from BEA's introduction of an improved method for measuring travel services.

down in U.S. economic growth, from 3.8 percent in 2000 to 0.3 percent in 2001, but the September 11<sup>th</sup> attacks also contributed significantly. In addition, special factors that contributed to the increase in 2000 were absent in 2001; in particular, imports in 2000 were boosted by a recovery in insurance services. The drop in imports was more than accounted for by decreases in travel-related services (expenditures by U.S. residents abroad and their payments to foreign airlines for international travel) and in insurance services.

The drop in imports was also concentrated in the second half of 2001. In the first half of the year, imports increased 8 percent from the same period in 2000; in the second half, they decreased 17 percent from the same period in 2000.

Europe and Asia and Pacific together accounted for more than two-thirds of total U.S. cross-border exports and imports of private services in 2001 (chart 4). Three countries—the United Kingdom, Japan, and Canada—accounted for nearly a third of both total U.S. exports and total U.S. imports of services (table B).

Of total cross-border trade in services, trade within multinational companies accounted for \$62.3 billion, or 23 percent, of exports of private services and for \$41.5 billion, or 22 percent, of imports of private services. Table C provides updated estimates of cross-border trade in services, by type, between U.S. parents and

their foreign affiliates and between U.S. affiliates and

**Table B. Cross-Border Service Exports and Imports by Type and Country, 2001**

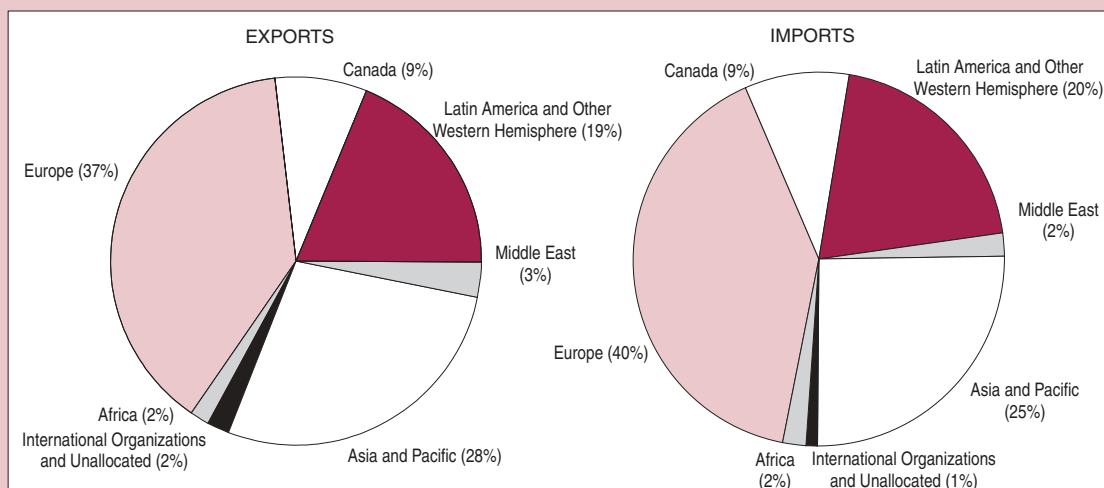
[Millions of dollars]

	Total services	Travel	Passenger fares	Other transportation	Royalties and license fees	Other private services
<b>Exports</b>						
<b>All countries</b> .....	<b>266,209</b>	<b>73,119</b>	<b>18,007</b>	<b>28,306</b>	<b>38,668</b>	<b>108,109</b>
<b>10 major countries</b> <sup>1</sup> .....	<b>147,989</b>	<b>40,996</b>	<b>11,075</b>	<b>13,739</b>	<b>23,229</b>	<b>58,950</b>
Japan .....	30,812	8,899	2,806	3,298	6,972	8,837
United Kingdom .....	29,116	9,191	2,685	1,904	3,309	12,027
Canada .....	24,276	6,484	1,668	2,212	2,255	11,657
Germany .....	14,606	2,965	779	1,887	2,827	6,148
Mexico .....	14,580	5,320	941	680	1,054	6,585
France .....	9,522	2,284	884	631	1,922	3,801
Korea, Republic of .....	7,121	1,928	43	1,751	1,295	2,104
Netherlands .....	6,357	1,081	388	630	1,284	2,974
Switzerland .....	5,822	982	152	299	1,561	2,828
Brazil .....	5,777	1,862	729	447	750	1,989
<b>Other countries</b> .....	<b>118,220</b>	<b>32,123</b>	<b>6,932</b>	<b>14,567</b>	<b>15,439</b>	<b>49,159</b>
<b>Imports</b>						
<b>All countries</b> .....	<b>192,305</b>	<b>60,117</b>	<b>22,418</b>	<b>38,823</b>	<b>16,359</b>	<b>54,588</b>
<b>10 major countries</b> <sup>1</sup> .....	<b>114,166</b>	<b>32,370</b>	<b>11,541</b>	<b>17,373</b>	<b>13,568</b>	<b>39,314</b>
United Kingdom .....	22,930	5,990	3,801	2,416	1,508	9,215
Canada .....	18,133	6,477	684	3,298	1,195	6,479
Japan .....	17,162	2,659	1,006	5,255	4,510	3,732
Mexico .....	10,954	6,707	806	1,548	84	1,809
Bermuda .....	10,625	532	0	0	754	9,339
Germany .....	10,184	2,368	1,701	2,136	1,521	2,458
France .....	8,933	3,410	1,143	956	1,096	2,328
Netherlands .....	5,517	664	834	805	1,166	2,048
Italy .....	5,360	2,861	748	708	68	975
Switzerland .....	4,368	702	818	251	1,666	931
<b>Other countries</b> .....	<b>78,139</b>	<b>27,747</b>	<b>10,877</b>	<b>21,450</b>	<b>2,791</b>	<b>15,274</b>

1. Ranked by dollar value of total exports or imports.

## CHART 4

### U.S. Cross-Border Services Transactions: Share by Area in 2001



U.S. Bureau of Economic Analysis

### Types of Cross-Border Services: Coverage and Definitions

The estimates of cross-border transactions cover both affiliated and unaffiliated transactions between U.S. residents and foreign residents. Affiliated transactions consist of intrafirm trade within multinational companies—specifically, the trade between U.S. parent companies and their foreign affiliates and between U.S. affiliates and their foreign parent groups. Unaffiliated transactions are with foreigners that neither own, nor are owned by, the U.S. party to the transaction.

Cross-border trade in private services is classified into the same five, broad categories that are used in the U.S. international transactions accounts—travel, passenger fares, “other transportation,” royalties and license fees, and “other private services.”

**Travel.** The travel accounts cover purchases of goods and services by U.S. persons traveling abroad and by foreign travelers in the United States for business or personal reasons. These goods and services include food, lodging, recreation, gifts, entertainment, and other items incidental to a foreign visit. Expenditures for local transportation in the country of travel are also covered. U.S. travel transactions with both Canada and Mexico include border transactions, such as day trips for shopping and sightseeing.

A “traveler” is a person who stays less than a year in a country and is not a resident of that country. Students’ educational expenditures and living expenses and medical patients’ expenditures are included in “other private services.”

**Passenger fares.** The passenger fare accounts cover fares paid by residents of one country to airline and vessel operators (carriers) that reside in another country. Receipts consist of fares received by U.S. air carriers from foreign residents for travel between the United States and foreign countries and between two foreign points and by U.S. vessel operators for travel on U.S. cruise vessels. Payments consist of fares paid by U.S. residents to foreign air carriers for travel between the United States and foreign countries and to foreign vessel operators for travel on foreign cruise vessels.

**“Other transportation.”** The “other transportation” accounts cover U.S. international transactions arising from the transportation of goods by ocean, air, land (truck and rail), pipeline, and inland waterway carriers to and from the United States, and between two foreign points. The accounts cover freight charges for transporting exports and imports and operating expenses that transportation companies incur in U.S. and foreign ports. Freight charges cover the receipts of U.S. carriers for transporting U.S. goods exports and for transporting goods between two foreign points and the payments to foreign carriers for transporting U.S. goods imports (freight insurance on exports and imports is covered in the “other private services” accounts).

Port services receipts consist of the value of the goods and services purchased by foreign carriers in U.S. ports. Port services payments consist of the value of goods and services purchased by U.S. carriers in foreign ports.

**Royalties and license fees.** The royalties and license fees

accounts cover transactions with nonresidents that involve patented and unpatented techniques, processes, formulas, and other intangible proprietary rights used in the production of goods; transactions involving trademarks, copyrights, franchises, broadcast rights, and other intangible rights; and the rights to distribute, use, and reproduce general-use computer software.

**“Other private services.”** These accounts consist of other affiliated and unaffiliated services. The unaffiliated services consist of six major categories: Education; financial services; insurance; telecommunications; business, professional, and technical services; and “other unaffiliated services.”

Education receipts consist of expenditures for tuition and living expenses by foreign students enrolled in U.S. colleges and universities. Payments consist of tuition and living expenses of U.S. students for study abroad.

Financial services cover a variety of services that include funds management, credit card services, explicit fees and commissions on transactions in securities, fees on credit-related activities, and other miscellaneous financial services. Implicit fees paid and received on bond trading are also covered.

Insurance consists of premiums earned and paid for primary insurance and for reinsurance; losses paid by U.S. insurers and losses recovered from foreign insurers are netted against the premiums. Primary insurance mainly consists of life insurance and property and casualty insurance. Each type of primary insurance may be reinsured; reinsurance is the ceding of a portion of a premium to another insurer who then assumes a corresponding portion of the risk.

Telecommunications consists of receipts and payments between U.S. and foreign communications companies for the transmission of messages between the United States and other countries; channel leasing; telex, telegram, and other jointly provided basic services; value-added services, such as electronic mail, video conferencing, and online access services (including Internet backbone services, router services, and broadband access services); and telecommunications support services.

Business, professional, and technical services cover a wide variety of services, such as legal services, accounting services, and advertising services (see the list in table 1).

“Other unaffiliated services” receipts consist mainly of expenditures (other than employee compensation) by foreign governments in the United States for services such as maintaining their embassies and consulates; non-compensation-related expenditures by international organizations—such as the United Nations, the International Monetary Fund, and the World Bank—that are headquartered in the United States; expenditures of foreign residents employed temporarily in the United States; and receipts from unaffiliated foreigners for the display, reproduction, or distribution of U.S. motion picture and television films and tapes. Payments consist primarily of payments by U.S. film distributors to unaffiliated foreign residents for the display, reproduction, or distribution of motion picture and television films and tapes.

their foreign parent groups for 1997–2001.<sup>7</sup> The estimates are grouped into three major categories—transportation, royalties and license fees, and “other private services”—that correspond to the major services categories in table 1 of which they are a part.<sup>8</sup>

Additional information about the five broad categories of cross-border trade in private services in the U.S. international transactions accounts—travel, passenger fares, other transportation, royalties and license fees, and other private services—follows (for detailed esti-

mates, see the tables at the end of the article).

### Travel

Travel receipts decreased 11 percent in 2001, to \$73.1 billion, following a 10-percent increase in 2000. The turnaround was primarily attributable to weakening economic conditions abroad and the effects of the attacks of September 11<sup>th</sup>. Receipts may also have been dampened by the strong value of the U.S. dollar. Travel activity, which had been flat during the first 8 months of 2001, fell precipitously in the aftermath of the attacks. Although travel steadily recovered during the fourth quarter, receipts at yearend were still well below pre-September 11<sup>th</sup> levels. For the year, travel receipts from overseas countries (countries other than Canada and Mexico) decreased 12 percent; the number of foreign visitors from overseas decreased 14 percent, and their average expenditures increased 2 percent.

7. The foreign parent group is defined as (1) the foreign parent, (2) any foreign person, proceeding up the foreign parent's ownership chain, that owns more than 50 percent of the person below it, up to and including the ultimate beneficial owner, and (3) any foreign person, proceeding down the ownership chain(s) of each of these members, that is owned more than 50 percent by the person above it.

8. Intrafirm trade is not applicable to travel or to passenger fares, the two major private services categories not shown in table C. In addition, certain other services are uniformly recorded as unaffiliated services transactions, even if they are between affiliated parties (see table C, footnote 3).

### Effects of the Terrorist Attacks of September 11<sup>th</sup> on Cross-Border Trade in Services

The estimates of exports and imports of services in 2001 include the effects of the September 11<sup>th</sup> terrorist attacks. The effects of the attacks are embedded in the data collected on BEA surveys and in other source data, so they cannot be separately identified. However, BEA analyzed the accounts for general movements that could be attributed to the September 11<sup>th</sup> attacks and found such movements in trade in travel, air transportation, financial services, and insurance.

Decreases in travel were mostly attributable to a sharp drop in the number of international travelers after September 11<sup>th</sup>. Immediately after the attacks, the U.S. air transport system was shut down, and then it was reopened with only limited service and far fewer travelers. In addition, land travel between the United States and Canada and Mexico slowed sharply for a short period, largely as a result of tightened U.S. border restrictions and general concerns about traveling. By the end of 2001, overseas travel by U.S. and foreign residents picked up, but it did not recover to pre-September 11<sup>th</sup> levels. Large decreases in passenger fare exports and imports were also attributable to the sharp drop in the number of international travelers; by the end of the year, fares had not returned to pre-September-11<sup>th</sup> levels. The effects of the attacks on travel and passenger fares are largely captured in the monthly source data from the U.S. Immigration and Naturalization Service on the number of foreign visitors to the United States and the number of U.S. travelers abroad. BEA's estimates of travel to and from Canada and Mexico are based on estimates prepared by statistical agencies in these countries.

Decreases in port services reflected the drop in international air travel after September 11<sup>th</sup> that reduced foreign air carriers' expenditures in U.S. airports and U.S. air carriers' expenditures in foreign airports through the end of

the year. In contrast, the air freight industry was little affected, even though flights to and from the United States were suspended for a short period, because the backlog of freight was rapidly eliminated. The effects of the attacks on air port services are largely captured in data that BEA collects from the airlines on quarterly surveys.

Decreases in financial services were the result of temporary declines in underwriting and brokerage services. Foreign stocks and bonds issued in the United States and U.S. stocks and bonds issued overseas decreased sharply in the aftermath of the attacks, but they recovered quickly; these short-term effects are reflected in the monthly source data from the Federal Reserve Bank of New York.

Decreases in insurance services imports were largely attributable to a sharp increase in losses recovered from foreign reinsurers. (Imports of insurance services are calculated as premiums paid less losses recovered.) As a result of the September 11<sup>th</sup> attacks, nearly \$12 billion in losses were recovered from reinsurance companies abroad, primarily from reinsurers in Germany, the United Kingdom, Bermuda, Switzerland, and France. These losses were recorded on an accrual basis at the time the insured event—the terrorist attacks—occurred. The source data on insurance losses recovered are collected on an annual BEA survey that provides only total losses for the year, not the losses recovered by cause or event. Therefore, BEA estimated the losses attributable to the attacks and recorded these losses in September; the allocation was based on reports from numerous foreign and domestic insurance companies and trade associations. Reinsurance premiums had been increasing before September 11<sup>th</sup>, and in the new risk environment, they accelerated.

Among the countries with the largest decreases in travel to the United States, Argentina, Japan, and Germany had especially weak economies in 2001. Receipts from Mexico, however, increased 3 percent in 2001, though its economy faltered. Nearly two-thirds of the travel receipts from Mexico represent visits in the border area, which are typically day trips; this type of travel strongly depends on the availability of goods and on the value of the peso relative to the U.S. dollar. In 2001, the peso appreciated slightly against the U.S. dollar, so U.S. goods continued to be attractive to Mexican consumers. Moreover, border travel was less affected by the terrorist attacks than was travel to the interior of the United States, which typically involves air travel.

Travel payments decreased 7 percent in 2001, to \$60.1 billion, following a 10-percent increase in 2000. Travel payments overseas decreased 9 percent. The number of U.S. travelers overseas decreased 7 percent, and their average expenditures decreased 2 percent.

U.S. travel overseas was strong during the first 5 months of the year, but it weakened in June, July, and August. The strength in the early part of the year may have reflected the lagged effects of the U.S. economic growth in 2000 and the favorable purchasing power of the U.S. dollar in several popular countries of destination. Like travel receipts, travel payments plummeted in the aftermath of September 11<sup>th</sup>. Although travel steadily recovered during the fourth quarter, payments at yearend were still well below pre-September 11<sup>th</sup> levels.

Travel payments to almost all overseas countries decreased, but travel payments to both Canada and Mexico increased slightly in 2001. Overland travel, a significant portion of travel to these countries, was less affected by the attacks than air travel, which is the primary transport mode to overseas destinations. U.S. travel to Canada was also spurred by the 4-percent appreciation of the U.S. dollar against the Canadian dollar. The increase in payments to Mexico was attributable to a 2-percent increase in travel to the interior of the country. Payments by U.S. travelers to the Mexican border area were virtually unchanged.

### **Passenger fares**

Passenger fare receipts decreased 13 percent in 2001, to \$18.0 billion, following a 5-percent increase in 2000. The sharp decrease was caused by the same factors that affected travel and by a continued increase in the share of foreigners traveling on foreign airlines rather than on U.S. airlines. Lower airfares put in place after September 11<sup>th</sup> failed to lure back enough travelers to prevent the fall in revenue.

Passenger fare payments decreased 8 percent, to \$22.4 billion, following a 14-percent increase. The decrease was almost entirely accounted for by a falloff in payments for travel to Europe. The share of U.S. residents traveling on foreign airlines rather than on U.S. airlines was little changed, even after September 11<sup>th</sup>.

### **Other transportation**

Receipts for "other transportation" services decreased 6 percent in 2001, to \$28.3 billion, following a 12-percent increase in 2000. The increase in 2000, the largest in more than 10 years, resulted from increases in freight receipts that reflected strong economic growth in many of the countries that are important destinations for U.S. goods exports and from increases in port services receipts that reflected strong economic growth in the United States. Higher revenues from bunker and jet fuel sales also contributed to the increase.

In 2001, freight receipts decreased as the slowdown in worldwide economic growth reduced the volume of goods transported by U.S.-operated ocean carriers. Ocean freight rates decreased, reflecting weak demand for goods, especially bulk items such as coal, iron ore, and grain. Air freight receipts also decreased, reflecting U.S. air carriers' lower revenues for transporting goods from the United States and between foreign points and a decrease in the surcharge that had been imposed in 2000 to help offset higher fuel prices. "Other freight" receipts decreased slightly. This decrease was more than accounted for by a falloff in receipts from Canada, which include receipts of U.S. firms for transporting goods by truck, rail, and pipeline.

Port services also decreased in 2001, mainly because of a falloff in the number of foreign visitors to the United States. This falloff, which was especially large following September 11<sup>th</sup>, reduced expenditures by foreign air carriers in U.S. airports for items such as aircraft handling and terminal expenses and for fuel. In addition, jet and bunker fuel prices fell sharply.

Transactions between affiliated parties accounted for \$0.2 billion, or less than 1 percent, of total U.S. receipts for "other transportation" services in 2001 (table C). Most of these receipts resulted from transactions between U.S. parent companies and their foreign affiliates.

Payments for "other transportation" services decreased 7 percent in 2001, to \$38.8 billion, following a 22-percent increase in 2000. The decrease is largely the result of slow economic growth in the United States, which reduced the demand for imports and thus lowered freight volumes and rates. The decrease in freight payments was widespread among geographic areas and

countries. The effects of the September 11<sup>th</sup> attacks also contributed to the decrease by reducing the number of U.S. air travelers abroad, which caused a sharp falloff in U.S. air carriers' expenditures in foreign ports.

Ocean freight payments fell, as decreases in payments to foreign-operated liner and tramp vessels more than offset a small increase in payments to operators of tanker vessels. Liner and tramp freight rates dropped sharply because of weak demand for goods and excess capacity in the shipping market. The increase in payments to tanker operators was largely due to the high volume of petroleum imports during the first half of the year, when tanker rates were at near-record highs. Air freight payments decreased, largely reflecting the decreased volume of imports transported

by foreign air carriers. "Other freight" payments decreased, as payments to Canadian carriers for transporting goods by truck in the United States fell.

Port services payments abroad also decreased, primarily reflecting a decrease in U.S. carriers' payments in foreign airports. Three factors contributed to this decrease: The falloff in the number of U.S. air travelers, decreases in the volume of both exports and imports of goods, and lower prices for jet fuel.

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**Table C. Intrafirm Trade in Services, by Type, 1997–2001**

[Billions of dollars]

	Total	Transportation <sup>1</sup>	Royalties and license fees <sup>2</sup>	Other private services							
				Total <sup>3</sup>	Financial services	Computer and information services	Management and consulting services	Research and development and testing services	Film and television tape rentals	Operational leasing	Other
Receipts											
Total transactions:	52.0	0.4	24.5	27.1	2.3	1.6	( <sup>4</sup> )	( <sup>5</sup> )	2.4	1.5	19.3
1997 .....	54.9	0.4	26.4	28.1	2.7	1.3	( <sup>4</sup> )	( <sup>5</sup> )	2.3	1.8	20.0
1998 .....	55.4	0.3	26.5	28.6	3.5	1.1	( <sup>4</sup> )	( <sup>5</sup> )	2.4	1.8	19.8
1999 .....	59.6	0.3	26.8	32.5	2.7	1.2	( <sup>4</sup> )	( <sup>5</sup> )	2.4	1.8	24.3
2000 .....	62.3	0.2	25.9	36.2	2.8	1.1	1.9	4.3	2.6	1.8	21.7
2001 .....											
U.S. parents' transactions:	40.8	0.4	23.1	17.3	1.4	1.4	( <sup>4</sup> )	( <sup>5</sup> )	2.4	1.2	10.9
1997 .....	42.9	0.4	24.4	18.1	1.8	1.3	( <sup>4</sup> )	( <sup>5</sup> )	2.3	1.5	11.2
1998 .....	43.1	0.3	24.8	18.0	2.0	1.0	( <sup>4</sup> )	( <sup>5</sup> )	2.4	1.4	11.2
1999 .....	44.7	0.3	24.6	19.8	1.6	1.2	( <sup>4</sup> )	( <sup>5</sup> )	2.4	1.5	13.1
2000 .....	44.9	0.2	23.5	21.2	1.5	1.0	1.0	2.0	2.6	1.6	11.5
2001 .....											
U.S. affiliates' transactions:	11.2	(*)	1.4	9.8	0.9	0.2	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.3	8.4
1997 .....	12.0	(*)	2.0	10.0	0.9	(*)	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.3	8.8
1998 .....	12.3	(*)	1.7	10.6	1.5	0.1	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.4	8.6
1999 .....	14.9	(*)	2.2	12.7	1.1	0.1	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.3	11.2
2000 .....	17.4	(*)	2.4	15.0	1.3	0.1	0.9	2.3	(*)	0.2	10.2
2001 .....											
Payments											
Total transactions:	24.8	0.4	6.8	17.6	2.8	0.8	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.9	13.1
1997 .....	28.4	0.4	8.6	19.4	4.2	0.9	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.9	13.4
1998 .....	33.3	0.1	9.9	23.3	5.1	1.4	( <sup>4</sup> )	( <sup>5</sup> )	(*)	1.0	15.8
1999 .....	38.0	(*)	12.1	25.9	5.9	1.1	( <sup>4</sup> )	( <sup>5</sup> )	(*)	1.0	17.9
2000 .....	41.5	0.1	13.0	28.4	5.3	1.3	1.6	1.0	(*)	1.0	18.2
2001 .....											
U.S. parents' transactions:	10.8	0.4	1.4	9.0	2.5	0.5	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.1	5.9
1997 .....	12.6	0.4	1.8	10.4	3.3	0.6	( <sup>4</sup> )	( <sup>5</sup> )	(*)	(*)	6.5
1998 .....	14.9	0.1	1.8	13.0	3.9	1.2	( <sup>4</sup> )	( <sup>5</sup> )	(*)	(*)	7.9
1999 .....	15.3	(*)	1.9	13.4	3.8	0.9	( <sup>4</sup> )	( <sup>5</sup> )	(*)	(*)	8.7
2000 .....	15.6	0.1	2.0	13.5	3.5	1.0	0.4	0.1	(*)	0.1	8.4
2001 .....											
U.S. affiliates' transactions:	14.0	(*)	5.4	8.6	0.3	0.3	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.8	7.2
1997 .....	15.8	(*)	6.8	9.0	0.9	0.3	( <sup>4</sup> )	( <sup>5</sup> )	(*)	0.9	6.9
1998 .....	18.4	(*)	8.1	10.3	1.2	0.2	( <sup>4</sup> )	( <sup>5</sup> )	(*)	1.0	7.9
1999 .....	22.7	(*)	10.2	12.5	2.1	0.2	( <sup>4</sup> )	( <sup>5</sup> )	(*)	1.0	9.2
2000 .....	25.9	(*)	11.0	14.9	1.8	0.3	1.2	0.9	(*)	0.9	9.8
2001 .....											

\* Less than \$50 million.

1. Included under "other transportation" in table 1.

2. Equal to "affiliated royalties and license fees" in table 1.

3. Equal to "affiliated other private services" in table 1. Intrafirm trade in other private services excludes payments related to basic telecommunications services because they represent the distribution of revenues collected from unaffiliated customers. It also excludes intrafirm trade in insurance services, except primary

insurance (and the related recovery of losses) by U.S. companies from affiliated foreigners.

4. Prior to 2001, management and consulting services were included in "other" services. Beginning in 2001, data on management and consulting services were collected as a separate type of service.

5. Prior to 2001, research and development and testing services were included in "other" services. Beginning in 2001, data on research and development and testing services were collected as a separate type of service.

### Royalties and license fees

Receipts of royalties and license fees decreased 2 percent in 2001, to \$38.7 billion, following a 7-percent increase in 2000. Affiliated royalty and license fee receipts decreased 4 percent, following a 1-percent increase; the decrease in 2001 was more than accounted for by U.S. parents' receipts from their foreign affiliates in the manufacturing industry, especially those in Europe. Unaffiliated royalty and license fee receipts were virtually unchanged.

Unaffiliated receipts from the rights to use and distribute software, the largest category of royalty and license fee receipts, reached nearly \$5 billion in 2001. Additional receipts from software licensing agreements stemmed from transactions through affiliated (intrafirm) channels, but the value of these receipts cannot be separately identified (for more information, see the box "Delivery of Computer Services to Foreign Markets").

Unaffiliated royalties and license fees receipts may have been dampened in recent years by the transfer of intellectual property (such as patents, trademarks, and copyrights) to foreign affiliates. Under this practice, the affiliate rather than the U.S. parent company collects the royalties and license fees on sales of the products associated with the intellectual property, and the portion of the total amount received that is transferred

by the affiliate to the parent, either as royalties and license fees or as income, is recorded in the international accounts as affiliated transactions rather than as unaffiliated royalties and license fees.<sup>9</sup> A variety of considerations motivates these transactions. For example, the intellectual property may be transferred to affiliates in countries with low taxes in order to reduce overall taxes, or it may be transferred in order to facilitate its adaptation to local markets; for example, computer software sometimes must be adapted to the local language and to the locally available hardware and operating systems.

Payments of royalties and license fees increased 2 percent in 2001, to \$16.4 billion, following a 28-percent increase in 2000. These payments have more than tripled since 1993 and have been the fastest growing major category of services imports during this period. In 2001, an increase in payments by U.S. affiliates to their foreign parents more than offset a decrease in un-

9. The form and volume in which the royalty revenues of the foreign affiliate flow back to the U.S. parent company depend on the contractual arrangements governing the transfer. If the flows are in the form of royalties or license fees, it is recorded in affiliated royalties and license fees receipts. If they are in the form of income, it is recorded in direct investment income receipts. In both cases, the flows are still in the current account. Thus, these transfers may have reduced U.S. receipts of unaffiliated royalties and license fees, but the reduction may be offset by other receipts recorded elsewhere in the current account. In addition, these transfers may lead to increased sales through foreign affiliates.

### Delivery of Computer Services to Foreign Markets

For computer-related services, as well as for many other types of services, the means of delivery may be further divided within the two major channels of cross-border trade and sales through affiliates. As a result, the total value of these services is scattered across several categories in the tables for cross-border trade and for sales by affiliates.

Cross-border exports to unaffiliated foreigners of "computer and data processing services" and "data base and other information services" are shown in table 1 under "business, professional, and technical services."<sup>1</sup> Computer-related services that are delivered to foreign markets through cross-border software-licensing agreements are shown under "Royalties and license fees."<sup>2</sup>

1. For detailed estimates of the exports of these services to numerous countries and areas, see table 7.

2. Receipts and payments for general use software that is packaged and physically shipped to or from the United States are included in trade in goods. The value of software that is preinstalled on computer equipment and peripherals is captured in the value of this hardware and thus also included in trade in goods.

Exports through agreements with unaffiliated foreigners are shown in table 4 in the column "general use software." Exports through agreements with affiliated foreigners (intrafirm trade) are included in affiliated royalty and license fee transactions in table 1, but their value cannot be separately identified. Intrafirm exports of computer and information services, which consists of computer and data processing services and of data base and other information services, are shown in table C.

Sales of computer-related services through foreign affiliates exceeded cross-border exports of these services in 2000, the most recent year for which comparable data are available, reflecting the advantages of a local presence when delivering these services to foreign customers (table 9). The available data on sales through affiliates are classified by primary industry of the affiliate rather than by type of service; thus, computer-related services may be sold not only through foreign-affiliates in the computer services industry but also by affiliates in several other industries, particularly machinery manufacturing and wholesale trade.

affiliated payments. The increase in payments by U.S. affiliates partly reflected the robust activity of affiliates in the motor-vehicle wholesaling and motor-vehicle manufacturing industries. The decrease in unaffiliated transactions was attributable to the absence of two special factors that had increased payments in 2000. First, a jump in payments for the broadcasting and recording of live events reflected payments to the International Olympic Committee for broadcast rights to the Summer Olympic Games; second, a jump in payments for the use of trademarks was largely due to a surge in payments for the rights to sell children's toys in the United States (table 4.3). Excluding these two factors, unaffiliated transactions would have been little changed in 2001.

### Other private services

Receipts for "other private services" increased 3 percent in 2001, to \$108.1 billion, following a 7-percent increase in 2000. Increases in services delivered to foreign markets through affiliated channels, in business, professional, and technical services, and in education more than offset decreases in insurance services and in financial services. Telecommunications receipts were little changed.

Payments for "other private services" decreased 1 percent in 2001, to \$54.6 billion, following a 19-percent increase in 2000. Decreases in insurance, in telecommunications, and in financial services more than offset increases in services delivered to U.S. markets through affiliated channels, in business, professional, and technical services, and in education.

**Unaffiliated transactions.** Unaffiliated cross-border trade in "other private services" consists of five principal categories—education; financial services; insurance; telecommunications; and business, professional, and technical services. (For detailed estimates, see the tables at the end of the article.)

Receipts for education increased 11 percent in 2001, to \$11.5 billion, following an 8-percent increase in 2000. The number of foreign students studying in the United States increased 6.4 percent, the largest percentage increase since 1980, to nearly 550,000. More than half were undergraduate students, and more than half were from Asian countries. The number of students from nearly every area of the world increased. Education payments increased 16 percent in 2001, to \$2.4 billion, following a 14-percent increase in 2000. Educational institutions in the United Kingdom remained the most popular destination for U.S. students studying abroad, accounting for more than 20 percent

of the number of students.

Financial services receipts decreased 7 percent, to \$15.2 billion, in 2001, following a 22-percent increase in 2000. These receipts, which had more than doubled since 1996, reversed direction in 2001 as foreign activity in U.S. financial markets slowed. The decrease was primarily attributable to a reduction in financial advisory and custody services due to a falloff in mergers and acquisitions. Underwriting services decreased because foreigners sharply reduced their issuances of stocks in the United States; new issuances of foreign bonds also fell. Financial management services also decreased. These decreases were partly offset by an increase in brokerage commissions, as foreigners traded heavily in outstanding U.S. bonds. Financial services payments decreased 10 percent to \$4.0 billion in 2001, following a 31-percent increase in 2000. The 2001 decrease was largely attributable to a slowdown in new issues of U.S. stocks and bonds abroad. Financial advisory and custody services and financial management services also decreased.

Insurance services receipts fell to a mere \$18 million in 2001, after more than doubling to \$2.1 billion in 2000.<sup>10</sup> Because net insurance services are calculated as premiums paid less losses recovered, they may swing sharply from year to year, even when the underlying gross flows change relatively little. In 2001, a sizable increase in claims paid to foreigners, mainly in the United Kingdom, raised claims to a level that offset virtually all of the premiums received by U.S. insurance companies from foreigners.<sup>11</sup> Total U.S. premiums received increased slightly, largely because lost business in Japan offset widespread increases in premiums received from most other countries, as new business was underwritten and premium rates increased. Insurance services payments fell by nearly half in 2001, to \$4.9 billion, after more than tripling in 2000, as a surge in losses recovered more than offset a nearly 50-

10. Insurance services, though listed under unaffiliated services, consist of both affiliated and unaffiliated transactions. Receipts are calculated as premiums received from foreigners for primary insurance and reinsurance less claims paid by U.S. insurers. Payments are calculated as premiums paid to foreigners for primary insurance and reinsurance less losses recovered from foreign insurers.

11. The large increase in claims paid to the United Kingdom may be related to the terrorist attacks. Reinsurance arrangements often have multiple tiers, especially where large risks are concerned, and some insurance placed with companies located in the United Kingdom—a major international insurance center—typically would have been, in turn, reinsured with other companies, including some located in the United States. Settlement of attack-related claims therefore could have resulted in U.S. claim payments to foreign insurers, even though most of the funds paid would ultimately be rerouted through primary insurers to policy holders located in the United States.

percent increase in premiums paid. The surge was largely attributable to the recording in the third quarter of large nonrecurring losses recovered from foreign reinsurance companies as a result of the September 11<sup>th</sup> attacks. (Losses recovered are recorded in the accounts on an accrual basis at the time the insured event occurs.) The increase in premiums paid, which accelerated following the attacks, reflected both higher rates and an increase in the amount of insurance ceded to foreign reinsurance companies. Foreign companies set higher rates in an effort to recoup past losses and to ensure that they maintained a sound financial position based on their reassessment of the risk environment.

Receipts for telecommunications services were virtually unchanged in 2001 at \$4.8 billion, following a 5-percent increase in 2000; payments decreased 21 percent to \$4.3 billion, following a 17-percent decrease. Calling rates continued to decline, offsetting an increase in the volume of calls. Sharp reductions in calling rates in recent years and the availability of alternative means of communications, such as e-mail,

have resulted in lower levels of both receipts and payments for basic telecommunications services, but payments for basic services have fallen much more sharply than receipts since 1996 (see the box “The 2001 Benchmark Survey of Selected Services Transactions”). Moreover, the share of telecommunications services that is attributable to basic telecommunications services has decreased greatly since 1996, as transactions associated with privately leased channel services, value-added services (such as video-conferencing and broadband access services), and support services have surged.

Business, professional, and technical services receipts increased 6 percent, to \$25.7 billion in 2001, following a 12-percent decrease in 2000; payments increased 16 percent, to \$10.0 billion, following a 6-percent increase. The increases in receipts and payments in 2001 were spread among all major geographic areas and among most types of services. Receipts for construction, engineering, architectural, and mining services increased as increases in construc-

### Data Sources

The estimates in this article are primarily based on data from the surveys conducted by the Bureau of Economic Analysis (BEA). However, the estimates for some services are based on data from a variety of other sources, including the U.S. Customs Service, surveys conducted by other Federal Government agencies, private sources, and partner countries.

BEA conducts 11 surveys of cross-border trade with unaffiliated foreigners—that is, with foreigners that neither own nor are owned by the U.S. party to the transaction. These surveys cover six broad categories of services: (1) Selected services (mainly miscellaneous business, professional, and technical services), (2) construction, engineering, architectural, and mining services, (3) insurance, (4) financial services, (5) royalties and license fees, and (6) transportation. Each of these categories is covered by a separate survey or by a group of surveys.

More detailed information on these surveys is available in *U.S. International Transactions in Private Services: A Guide to the Surveys Conducted by the Bureau of Economic Analysis*. The *Guide* presents general information about the classification, definition, and release schedules of all the surveys, and it provides details on the items covered on each survey, the frequency of the surveys, the numbers of respondents, and the methods used to prepare the estimates. The *Guide* is available on BEA's Web site at <www.bea.gov>, or by writing to the International Investment Division, BE-50, Bureau of Economic Analysis, Washington, DC 20230, or by e-mail at <internation-

alaccounts@bea.gov>. For further information, call 202-606-9853.

The data on intrafirm trade in services and on sales by majority-owned affiliates are collected in BEA's surveys of U.S. direct investment abroad and of foreign direct investment in the United States. For the methodologies for these surveys, see *U.S. Direct Investment Abroad: 1994 Benchmark Survey, Final Results* (Washington, DC: U.S. Government Printing Office, 1998) and *Foreign Direct Investment in the United States: Final Results From the 1997 Benchmark Survey* (Washington, DC: U.S. Government Printing Office, 2001).

For additional information on the methodology that is used to prepare the estimates of both affiliated and unaffiliated cross-border trade, see *The Balance of Payments of the United States: Concepts, Data Sources, and Estimating Procedures* (Washington DC: U.S. Government Printing Office, 1990). For changes in the methodology that have been made since 1990, see the section “Technical Notes” in the quarterly articles on the U.S. international transactions in the June 1990 and 1991 issues of the *SURVEY OF CURRENT BUSINESS*, the section “Revised Estimates for 1976–91” in the June 1992 issue, and the annual articles on the revised estimates of U.S. international transactions in the June 1993–95 issues and in the July 1996–2002 issues.

These methodologies and the *SURVEY* articles for July 1996–2002 are also available on BEA's Web site.

tion services and engineering and architectural services offset a decrease in mining services.<sup>12</sup> Receipts for each of these services may fluctuate sharply from year to year because they are typically based on a small num-

12. BEA is publishing separate estimates of construction services, of engineering, architectural, and other technical services, and of mining services for the first time (see table 1). This detail is based on data that BEA collects on its surveys.

ber of high-value projects. Receipts for operational leasing services, which largely consist of the leasing of transportation equipment without crew, decreased after years of steady increases. Receipts for "computer and data processing services" also decreased, reflecting general weakness in foreign economies, which had a pronounced effect on the U.S. high-tech industry; about half the value of the transactions associated with

### The 2001 Benchmark Survey of Selected Services Transactions

The estimates of business, professional, and technical services were revised to incorporate the preliminary results of BEA's 2001 Benchmark Survey of Selected Services Transactions with Unaffiliated Foreign Persons. The benchmark survey collects more detailed data than the annual surveys, which collect information on more than two dozen types of business, professional, and technical services. For example, the benchmark survey collects additional information on telecommunications, computer and data processing services, and database and other information services. In addition, it covers several smaller services that the annual survey does not cover in order to reduce respondent burden; these services are agricultural services, mailing reproduction and commercial art, employment agency and temporary help services, and management of health care facilities (see the accompanying table, which also provides comparable detail from the 1996 benchmark survey).

The benchmark survey was redesigned for 2001 to clarify that transactions conducted over the Internet were to be reported. The survey was also updated to cover services that have become increasingly important in today's global market. For example, telecommunications "value-added services" now includes a specific reference to broadband access services, and "other business, professional, and technical services" now includes auction services and waste treatment services.

On the benchmark survey, only those U.S. individuals, companies, and other organizations whose sales or purchases of any type of covered service exceeded \$1 million were required to file a report. However, those who claimed exemption from reporting were required to report their total sales and purchases and to note the primary type of service associated with these transactions; in addition, some exempt entities voluntarily reported information on their transactions.

Estimates for business, professional, and technical services transactions that fall below the exemption levels for reporting on the benchmark and on the annual surveys are included in the accounts each year. The amounts, though small, eliminate a source of understatement in the universe estimates. Based on the reports filed in

claiming exemption and on the voluntary reports, \$237 million was added to receipts and \$197 million was added to payments in 2001. For transactions that were not reported by country, the data were allocated on the basis of the country composition of the transactions that were reported by country.

#### Detail Collected in the 1996 and 2001 Benchmark Survey of Selected Services Transactions With Unaffiliated Foreign Persons [Billions of dollars]

	1996	2001 <sup>p</sup>
<b>U.S. receipts</b>		
Agricultural services.....	(*)	(*)
Computer and data processing services .....	1.6	2.6
Data entry, processing, and tabulation .....	0.3	1.0
Systems analysis, design, engineering, and custom programming.....	0.6	1.3
Integrated hardware/software systems .....	0.3	0.2
Other .....	0.4	0.2
Data base and other information services .....	1.2	2.2
Business and economic data base services .....	0.3	0.5
Medical, legal, technical, demographic, bibliographic, and similar data base services.....	0.1	(D)
General news services.....	(*)	0.1
Other .....	0.7	(D)
Employment agencies and temporary help services .....	0.1	(*)
Mailing, reproduction, and commercial art.....	(*)	(*)
Management of health care facilities .....	(*)	(*)
Miscellaneous disbursements.....	0.3	0.2
Disbursements to fund production costs of motion pictures .....	(*)	(*)
All other disbursements .....	0.3	0.2
Telecommunications .....	3.3	4.8
Message telephone services .....	2.6	3.2
Private leased channel services.....	0.4	(D)
Telex, telegram, and other jointly-provided (basic) services.....	(*)	(*)
Value added services.....	(*)	0.6
Support services .....	0.2	(D)
<b>U.S. payments</b>		
Agricultural services.....	(*)	(*)
Employment agencies and temporary help services .....	(*)	(*)
Mailing, reproduction, and commercial art.....	(*)	(*)
Management of health care facilities .....	(*)	(*)
Miscellaneous disbursements.....	0.8	1.3
Disbursements to fund production costs of motion pictures .....	0.2	0.5
All other disbursements .....	0.6	0.8
Telecommunications .....	8.3	4.3
Message telephone services .....	8.2	3.7
Private leased channel services.....	(*)	0.1
Telex, telegram, and other jointly-provided (basic) services.....	(*)	(D)
Value added services.....	(*)	0.2
Support services .....	(*)	(D)

<sup>p</sup> Preliminary

\* Less than \$50 million.

D Suppressed to avoid disclosure of data of individual companies.

Note. Details may not add to totals because of rounding.

these services are related to systems analysis, design, engineering and custom programming.

**Affiliated transactions.** “Other private services” delivered to foreign markets through affiliated channels (intrafirm receipts) increased 11 percent, to \$36.2 billion, in 2001, following a 14-percent increase in 2000. The increase was generally widespread across industries and largely resulted from an increase in U.S. affiliates’ receipts from their foreign parents. Intrafirm payments increased 9 percent, to \$28.4 billion, following a 12-percent increase. Almost all of the increase in 2001 was attributable to payments by U.S. affiliates to foreign parents.

In 2001, the estimates of cross-border trade in “other private services” between affiliated parties by type of service were expanded to include two types of services that had previously been included in the “other” category: Research and development and testing services and management and consulting services (table C). These services were added because a significant portion of the services in the “other” category consisted of allocated expenses, such as charges for research and development or management services, that are apportioned among the various divisions or parts of an enterprise. Research and development and testing services accounted for 12 percent of “other private services” receipts and for 4 percent of “other private services” payments; management and consulting services accounted for 5 percent of receipts and for 6 percent of payments. However, in 2001, the “other” category continued to account for most of “other private services” receipts;<sup>13</sup> the next largest category was research and development and testing services, followed by film and television tape rentals and financial services. Most of the “other private services” payments were accounted for by the “other” category, followed by financial services and by management and consulting services.

### Sales Through Affiliates in 2000

In 2000, the latest year for which data are available, worldwide sales (the combined sales to foreign and U.S. persons) of services by U.S. multinational companies through their nonbank, majority-owned foreign

affiliates were \$411.5 billion, up 10 percent from 1999. Worldwide sales of services by foreign multinational companies through their nonbank, majority-owned U.S. affiliates were \$373.7 billion, up 18 percent (table D).<sup>14</sup>

Sales by affiliates—of both goods and services—are predominantly local transactions. In 2000, 86 percent of worldwide sales of services by foreign affiliates of U.S. companies were local sales, that is, transactions with parties located in the same country as the affiliate; the corresponding share for goods was 63 percent. Services’ larger share reflects the importance of proximity to the customer in the delivery of services. Partly reflecting the large U.S. market, local sales accounted for 93 percent of sales of services by U.S. affiliates of foreign companies and for an estimated 90 percent of sales of goods.<sup>15</sup>

14. In this section, sales of services are defined as sales that are typically associated with selected industry groups, which are listed in the note to table D.

15. Because the data on sales of goods by U.S. affiliates are not disaggregated by destination, the local and foreign shares have been estimated from the data on exports of goods shipped by affiliates. In 2000, these exports represented 10 percent of total sales of goods by these affiliates.

**Table D. Sales of Services by U.S. MNC's Through Their Nonbank MOFA's and by Foreign MNC's Through Their Nonbank MOUSA's, 1999–2000**  
[Millions of dollars]

	1999	2000
<b>Sales through MOFA's</b>		
Total .....	372,852	411,511
To affiliated persons .....	38,435	39,332
To unaffiliated persons .....	334,417	372,179
To U.S. persons .....	19,646	18,726
To U.S. parents .....	14,779	14,047
To unaffiliated U.S. persons .....	4,867	4,679
To foreign persons .....	353,206	392,785
To other foreign affiliates .....	23,656	25,285
To unaffiliated foreign persons .....	329,550	367,500
Local sales .....	320,686	355,273
To other foreign affiliates .....	9,790	11,351
To unaffiliated foreigners .....	310,896	343,922
Sales to other countries .....	32,520	37,512
To other foreign affiliates .....	13,866	13,934
To unaffiliated foreigners .....	18,654	23,578
<b>Sales through MOUSA's</b>		
Total .....	316,939	373,732
To U.S. persons .....	293,485	346,669
To foreign persons .....	23,454	27,063
To the foreign parent group .....	10,259	10,289
To foreign affiliates .....	1,173	771
To other foreigners .....	12,021	16,003

NOTE: Depository institutions are excluded because data are not available.

In this table, sales of services through affiliates are those typical of establishments in the following industries derived from the North American Industry Classification System: Utilities; transportation and warehousing; information; finance and insurance; real estate and rental and leasing; professional, scientific, and technical services; management of companies and enterprises; administrative and support, waste management, and remediation services; educational services; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; support activities for agriculture and forestry; support activities for oil and gas operations; support activities for mining; and other services.

MNC Multinational company  
MOFA Majority-owned foreign affiliate  
MOUSA Majority-owned U.S. affiliate

13. The “other” category includes allocated expenses—except those for research and development services and management services—and professional and technical services, such as public relations, advertising, legal services, and communication services except basic telecommunications services.

Sales of services to foreign persons by nonbank foreign affiliates (that is, their local sales plus their sales to other foreign countries) and sales of services to U.S. persons by nonbank U.S. affiliates (that is, their local sales) both represent services delivered to international markets through the channel of direct investment. These sales are presented by country of foreign affiliate or by country of the U.S. affiliates' ultimate beneficial owner (UBO) for 1993–2000 in table 8.<sup>16</sup> Tables 9.1 and 9.2 present sales by primary industry of the foreign affiliate cross-classified by country in 1999 and 2000. Tables 10.1 and 10.2 present sales by primary industry of the U.S. affiliate cross-classified by country of UBO in 1999 and 2000.

### Foreign affiliates' sales to foreign persons

In 2000, sales of services to foreign customers by nonbank, majority-owned foreign affiliates of U.S. companies were \$392.8 billion. By area, affiliates in Europe accounted for 52 percent of the total sales. Within Europe, almost half of the sales were accounted for by affiliates in the United Kingdom; affiliates in Germany had the second highest sales, followed by those in France and in the Netherlands. Affiliates in Canada accounted for 11 percent of sales to foreign persons, and affiliates in Japan accounted for 8 percent.<sup>17</sup>

16. The UBO of a U.S. affiliate is that person (in the broad legal sense, including a company), proceeding up the affiliate's ownership chain beginning with the foreign parent, that is not owned more than 50 percent by another person. The UBO ultimately owns or controls the affiliate and derives the benefits associated with ownership or control. Unlike the foreign parent, the UBO of a U.S. affiliate may be located in the United States.

By industry sector, sales were largest in "finance (except depository institutions) and insurance," in professional, scientific, and technical services, and in information. In finance and insurance, affiliates in insurance accounted for the majority of sales. In professional, scientific, and technical services, the largest sales were by affiliates in computer systems design and related services, followed by affiliates in architectural, engineering, and related services and in management, scientific, and technical consulting.<sup>18</sup> In information, the largest sales were by affiliates in broadcasting and telecommunications (primarily telecommunications), followed by affiliates in information services and data processing services and in publishing industries.

Sales of services abroad by foreign affiliates increased 11 percent in 2000. Sales were spurred by strong economic growth in many of the important host countries for foreign affiliates, which not only boosted sales through existing affiliates but also created attractive opportunities for U.S. multinationals to acquire or establish new affiliates abroad. Indeed, much of the increase resulted from sales by newly ac-

17. Beginning with the estimates for 1999, BEA no longer uses the "international" category in tabulating foreign direct investment. This change is being made to comply with international guidelines for the compilation of international transactions and direct investment statistics set forth by the International Monetary Fund's *Balance of Payments Manual*, 5th ed. For details, see footnote 4 to table 8.

18. Computer-related services are also likely to have been sold by affiliates classified in other industries, especially those in computers and electronic products manufacturing and in wholesale trade of professional and commercial equipment and supplies. See the box "Delivery of Computer Services to Foreign Markets" on page 76.

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The box "Effects of the Terrorist Attacks of September 11<sup>th</sup> on Cross-Border Trade in Services" and the estimates of these effects on the insurance accounts were prepared by Erin Engasser.

quired firms as part of the boom in cross-border mergers and acquisitions.<sup>19</sup> Many of the newly acquired firms were in industries and markets that offered investment opportunities and the potential for strong growth, including utilities that were acquired because of privatization programs in many countries and insurance, particularly life insurance in the Asia and Pacific region. The boom in cross-border mergers and acquisitions had a mixed impact on the sales of services through foreign affiliates because it also resulted in the loss of sales by affiliates that were acquired by foreign firms. However, the loss of these sales was more than offset by the increase in sales from newly acquired firms.

By country, the largest increase in sales was accounted for by affiliates in Canada, followed by affiliates in the United Kingdom and in Japan. In Canada, affiliates in wholesale trade and in utilities largely accounted for the increase. Sales in secondary activities, such as transportation, accounted for the increase in sales by affiliates in wholesale trade.<sup>20</sup> The increase in sales by affiliates in utilities was largely attributable to newly acquired natural gas distributors. In the United Kingdom, most of the increase in sales was accounted for by affiliates in utilities, mainly as a result of sales by newly acquired utility companies but also due to growth in sales by energy traders. In Europe excluding the United Kingdom, the growth in sales of services was curtailed by the exit of several large affiliates in waste management, travel services, and employment services from the affiliate universe as a result of foreign acquisitions of the foreign operations of the U.S. parent or of a restructuring following the foreign acquisition of the entire U.S. multinational company. In Japan, affiliates in life insurance and in computer systems design and related services accounted for most of

the increase. Affiliates in life insurance increased their sales by capturing market share from financially troubled Japanese life insurance companies and in some cases, by acquiring insolvent Japanese life insurers. Affiliates in computer systems design and related services increased their sales partly because Japanese firms expanded their outsourcing of information technology services.

By industry sector, the largest increases were in "finance (except depository institutions) and insurance," in utilities, and in professional, scientific, and technical services. Most of the increase in finance and insurance was accounted for by affiliates in insurance, especially life insurance affiliates in the Asia and Pacific region. In utilities, most of the increase reflected sales by newly acquired firms in Canada and the United Kingdom. In professional, scientific, and technical services, most of the increase was accounted for by affiliates in computer systems design and related services, almost all of which were in the Asia and Pacific region.

### U.S. affiliates' sales in the United States

In 2000, sales of services to U.S. customers by nonbank majority-owned U.S. affiliates of foreign companies were \$346.7 billion. By area of the affiliates' ultimate beneficial owner (UBO), Europe accounted for the largest share of total sales (67 percent), followed by Canada (15 percent), Asia and Pacific (12 percent), and Latin America and Other Western Hemisphere (4 percent). By country of the affiliates' UBO, the United Kingdom accounted for the largest share of sales, followed by Canada, Germany, and the Netherlands.

By industry sector, the largest sales were in "finance (except depository institutions) and insurance," followed by information and by manufacturing. Insurance accounted for most of the sales in finance and insurance. In information, the largest sales were in publishing, followed by broadcasting and telecommu-

19. For additional information, see Maria Borga and Raymond J. Mataloni, Jr., "Direct Investment Positions for 2000: Country and Industry Detail," *SURVEY 81* (July 2001): 16–29.

20. Wholesale trade provides distributive services for the sale of goods to retailers, intermediate users, and final users (except persons), and the value of the distributive services is embedded in the final value of goods they sell. When the data collection system for sales of services through affiliates was established, BEA chose to treat sales in wholesale trade as sales of goods because most of the value of the sale is attributable to the goods being sold and not to the distributive services. Consequently, wholesalers are actually more important suppliers of services than the data suggest. (The treatment of distributive services supplied by the retail trade industry is comparable with that of wholesale trade.) For a discussion of the measurement of distributive services in both cross-border trade and sales through affiliates, see Whichard and Borga, "Selected Issues in the Measurement of U.S. International Services."

### Data Availability

The estimates of cross-border trade for 1986–2001 and of sales through majority-owned affiliates for 1989–2000 are available as files that can be downloaded from BEA's Web site. To access these files, go to <[www.bea.gov](http://www.bea.gov)>, click on "Balance of payments and related data," and look under "Goods and services."

nications (primarily telecommunications). In manufacturing, the largest sales were in two industries that can have significant secondary activities in services: Transportation equipment (generally related to auto leasing and financing) and computers and electronic products (generally computer services).

U.S. affiliates' sales of services in the United States increased 18 percent in 2000. Strong U.S. economic growth fueled the boom in cross-border mergers and acquisitions and contributed to the growth in sales of services by existing U.S. affiliates. The increase primarily reflected net additions to the affiliate universe as a result of a record volume of new direct investments by foreign multinational companies.<sup>21</sup> Acquisition activity was particularly strong in the services industries, such as finance, advertising, management services, insurance, and telecommunications. There were also new investments in affiliates classified in computers and electronic products manufacturing; these affiliates can have significant sales of computer services.

More than four-fifths of the increase in affiliates' sales of services was accounted for by affiliates with UBO's in Europe. Within Europe, the largest increases were by German, French, and Swiss affiliates. For Germany, the largest increases were in two manufacturing sectors—transportation equipment manufacturing and electrical equipment, appliances, and components manufacturing—followed by finance. In transportation equipment manufacturing, the increase reflected

an increase in auto leasing and financing by existing affiliates. In electrical equipment, appliances, and components manufacturing, the increase was due to sales by firms in computer systems design and related services that were newly acquired by existing manufacturing affiliates.<sup>22</sup> The increase in finance reflected sales by newly acquired affiliates. For France, the increase largely reflected sales by newly acquired affiliates in advertising and related services and in management, scientific, and technical consulting. For Switzerland, the increase largely reflected sales by newly acquired affiliates in finance and in employment services. Outside of Europe, the largest increase in sales was by affiliates with UBO's in Canada. The increase was more than accounted for by utilities, reflecting both sales by newly acquired affiliates and growth in sales by existing affiliates.

By industry sector, the largest increase was by affiliates in finance and insurance, followed by affiliates in manufacturing and in professional, scientific, and technical services. In finance and insurance, the increase was mainly accounted for by the newly acquired affiliates in finance. The growth in sales by affiliates in manufacturing was primarily in electrical equipment, appliance, and component manufacturing and in transportation equipment manufacturing, mainly by affiliates with UBO's in Germany. In professional, scientific, and technical services, most of the growth was accounted for by affiliates in advertising and related services.

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21. According to data from BEA's survey of new foreign direct investment, outlays to acquire or establish U.S. businesses were \$335.6 billion in 2000; see Thomas W. Anderson, "Foreign Direct Investment in the United States: New Investment in 2001," *SURVEY* 82 (June 2002): 28–35. These data cover only transactions involving U.S. businesses newly acquired or established by foreign direct investors. For additional information about foreign direct investment in the United States, including transactions involving both new and existing U.S. affiliates, see Borga and Mataloni, "Direct Investment Positions in 2000," and Zeile, "Operations in 2000."

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22. On the reports used by BEA to collect the data, the sales of a newly acquired firm are consolidated with those of the existing affiliate, and the total sales are then recorded in the industry that accounts for the largest share of sales in the consolidated business. For these affiliates, the sales were included in electrical, appliance, and components manufacturing because that remained the industry with the largest share of sales for the consolidated business.